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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,190	09/11/2003	Eric D. Groen	X-1420 US	5845
24309	7590	05/17/2007		
XILINX, INC ATTN: LEGAL DEPARTMENT 2100 LOGIC DR SAN JOSE, CA 95124			EXAMINER FILE, ERIN M	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/660,190

Applicant(s)

GROEN, ERIC D.

Examiner

Erin M. File

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-16 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 16, 19-23 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 7-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/21/2007 have been fully considered but they are not persuasive.

2. The applicants contends:

In Nascimento, no reference or teaching is given "to select and operatively couple the first and second MGT circuitry to one of the at least one regulated power sources." Instead, Nascimento addresses a "current regulated circuit arrangement for controlling a power semiconductor transistor, as example a MOSFET or IGBT power transistor, that includes at least two mirror-symmetrically arranged regulated power sources and an output voltage regulator." At no point does Nascimento discuss the power requirements of a multi-gigabit transceiver (MGT). (par. 1 p. 7)

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

3. The applicants contends:

The alleged motivation is that "because programmable power management allows for more efficient use (of) power in a circuit, it would have been obvious to one skilled in the art at the time of invention to incorporate the power switching and regulation as disclosed by Tomlinson." No evidence is presented to support the conclusion. None of Tomlinson's teachings appears to suggest adaptability to circuit designs, **nor do any of Tomlinson's teachings appear to suggest applicability in a multi-gigabit transceiver (MGT) system for converting between parallel and serial data, comprising programmable logic for providing control signals to select and operatively couple the first and second MGT circuitry to one of the at least one regulated and unregulated power sources; and receiver serial-in-parallel-out circuitry (Rx SIPO).** Thus, the alleged motivation is

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unsupported by evidence and the Office Action fails to show that the combination could be made with a reasonable likelihood of success (par. 2, p. 8, emphasis added)

In response to applicant's argument that Tomlinson is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the use of switch programmable logic for power control as disclosed by Tomlinson could be reasonably applied to the teachings of Lutkemeyer even though the Tomlinson reference is not directed to a multi-gigabit transceiver because Tomlinson is directed to the general problem of power management of integrated circuit devices.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutkemeyer (U.S. Pub. No. 2001/0049812) in view of Nascimento (U.S. Pub. No. 2005/0024103), Tomlinson et al. (U.S. Pub. No. 2002/0104031) and Agarwal et al. (U.S. Pub. No. 2004/0212394)..

Claim 1, Lutkemeyer discloses a multi-giga bit transceiver (MGT, abstract, lines 1-3)

including:

- first MGT circuitry for performing a first MGT function (fig. 1, 30, circuit A performing a first function);
- second MGT circuitry for performing a second MGT function (fig. 1, 32, circuit B performing a second function);

Lutkemeyer fails to disclose:

- at least one regulated power source and at least one unregulated power source, both coupled to selectively provide regulated and unregulated power to the first and second MGT circuitry;
- programmable logic for providing control signals to select and operatively couple the first and second MGT circuitry to one of the at least one regulated and unregulated power sources.

However, Nascimento discloses:

- at least one regulated power source and at least one unregulated power source, both coupled to selectively provide regulated and unregulated power to the first and second MGT circuitry (abstract, lines 5-11);

As Nascimento discloses that his invention keeps power losses very low ([0017], lines 5-7) it would be obvious to one skilled in the art at the time of invention to incorporate the power sources as disclosed by Nascimento into the invention of Lutkemeyer.

Nascimento fails to disclose:

- programmable logic for providing control signals to select and operatively couple the first and second MGT circuitry to one of the at least one regulated and unregulated power sources.

However, Tomlinson discloses a switch programmable logic for providing control signals to select and operatively couple the first and second MGT circuitry to one of the at least one regulated and unregulated power sources (abstract). Because programmable power management allows for more efficient use power in a circuit, it would have been obvious to one skilled in the art at the time of invention to incorporate the power switching and regulation as disclosed by Tomlinson into the combined invention of Lutkemeyer and Nascimento. Lutkemeyer, Nascimento, Tomlinson, and Liu fail to disclose a serial-in-parallel-out circuitry, Agarwal discloses a receiver serial-in-parallel-out circuitry (Rx SIPO) [0031]. The use of a serial-in-parallel-out circuitry allows for faster data processing at the receiver end and would therefore be obvious to one skilled in the art at the time of invention to incorporate the serial-in-parallel-out as disclosed by Agarwal into the combined invention of Lutkemeyer, Nascimento, Tomlinson, and Liu.

Claim 2, Nascimento further discloses at least one regulated power source comprises an unregulated supply and a plurality of power regulators (abstract, lines 5, 8-9, first and second power regulators are disclosed) and Tomlinson discloses selective coupling of power from the supply to the first and second circuitry (abstract).

6. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutkemeyer (U.S. Pub. No. 2001/0049812), Nascimento (U.S. Pub. No. 2005/0024103),

and Tomlinson et al. (U.S. Pub. No. 2002/0104031) as applied to claims 1, 2 above, and further in view of Liu (U.S. Pub. No. 2005/0169416).

Claims 3-5, although neither Lutkemeyer, Nascimento, nor Tomlinson discloses the first MGT circuitry comprises a phase-locked loop (PLL), Liu discloses a transceiver which uses a phase lock loop which provides timing for the transmitting and receiving functions of the transceiver ([0006]). Because phase locked loops are well known in the art for the advantage of providing synchronized clocks in a transmitter or receiver, it would have been obvious to one skilled in the art at the time of invention to incorporate the phase locked loops as disclosed by Liu into the combined invention of Lutkemeyer, Nascimento, and Tomlinson.

Allowable Subject Matter

7. Claims 15, 16, 19-23 are allowed.
8. Claims 7-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is 5712726040. The examiner can normally be reached on M-F 1-9:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 5712723024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erin M. File


DAVID C. PAYNE
SUPERVISORY PATENT EXAMINER

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